Name:

at1113exam: Expand, factor, and solve quadratics (v212)

1. Expand the following expression into standard form.

$$(6x - 5)(6x + 5)$$

2. Solve the equation.

$$(9x + 2)(4x + 7) \;=\; 0$$

3. Expand the following expression into standard form.

$$(9x + 5)^2$$

4. Expand the following expression into standard form.

$$(7x - 4)(2x + 3)$$

5. Solve the equation.

$$8x^2 + 27x + 59 \;=\; 5x^2 - 2x + 3$$

6. Factor the expression.

$$81x^2 - 25$$

7. Solve the equation with factoring by grouping.

$$10x^2 - 15x + 12x - 18 \;=\; 0$$

8. Factor the expression.

$$x^2 + 2x - 63$$

Name:

at1113exam: Expand, factor, and solve quadratics (v213)

1. Expand the following expression into standard form.

$$(5x + 8)(5x - 8)$$

2. Solve the equation.

$$(9x + 2)(3x + 5) \;=\; 0$$

3. Expand the following expression into standard form.

$$(5x - 9)^2$$

4. Expand the following expression into standard form.

$$(9x - 4)(8x - 7)$$

5. Solve the equation with factoring by grouping.

$$20x^2 - 15x + 24x - 18 \;=\; 0$$

6. Factor the expression.

$$9x^2 - 16$$

7. Solve the equation.

$$8x^2 + 40x + 43 \;=\; 3x^2 + 2x - 5$$

8. Factor the expression.

$$x^2 + 11x + 28$$

Name:

at1113exam: Expand, factor, and solve quadratics (v214)

1. Expand the following expression into standard form.

$$(7x + 9)^2$$

2. Expand the following expression into standard form.

$$(5x + 9)(5x - 9)$$

3. Expand the following expression into standard form.

$$(4x + 5)(6x - 7)$$

4. Solve the equation.

$$(8x + 7)(9x + 2) \;=\; 0$$

5. Solve the equation.

$$12x^2 - 8x - 19 \;=\; 5x^2 - 2x - 3$$

6. Solve the equation with factoring by grouping.

$$15x^2 - 20x + 18x - 24 \;=\; 0$$

7. Factor the expression.

$$36x^2 - 49$$

8. Factor the expression.

$$x^2 - 9x + 20$$

Name:

at1113exam: Expand, factor, and solve quadratics (v215)

1. Expand the following expression into standard form.

$$(5x + 6)(2x + 9)$$

2. Expand the following expression into standard form.

$$(6x - 7)(6x + 7)$$

3. Expand the following expression into standard form.

$$(6x - 7)^2$$

4. Solve the equation.

$$(7x + 8)(2x + 3) \;=\; 0$$

5. Solve the equation.

$$7x^2 + 28x + 21 \;=\; 4x^2 + 2x + 5$$

6. Factor the expression.

$$81x^2 - 64$$

7. Solve the equation with factoring by grouping.

$$15x^2 + 18x - 10x - 12 \;=\; 0$$

8. Factor the expression.

$$x^2 - 7x + 10$$

Name:

at1113exam: Expand, factor, and solve quadratics (v216)

1. Expand the following expression into standard form.

$$(3x + 5)^2$$

2. Solve the equation.

$$(5x + 8)(4x + 3) \;=\; 0$$

3. Expand the following expression into standard form.

$$(9x + 4)(5x + 3)$$

4. Expand the following expression into standard form.

$$(4x - 3)(4x + 3)$$

5. Factor the expression.

$$9x^2 - 49$$

6. Solve the equation with factoring by grouping.

$$10x^2 - 8x + 15x - 12 \;=\; 0$$

7. Factor the expression.

$$x^2 - x - 56$$

8. Solve the equation.

$$10x^2 - 60x + 67 \;=\; 3x^2 - 2x + 4$$

Name:

at1113exam: Expand, factor, and solve quadratics (v217)

1. Solve the equation.

$$(9x + 2)(5x - 3) \;=\; 0$$

2. Expand the following expression into standard form.

$$(9x - 5)(9x + 5)$$

3. Expand the following expression into standard form.

$$(5x + 7)(9x - 8)$$

4. Expand the following expression into standard form.

$$(8x + 5)^2$$

5. Factor the expression.

$$49x^2 - 64$$

6. Factor the expression.

$$x^2 - x - 56$$

7. Solve the equation with factoring by grouping.

$$12x^2 - 8x + 15x - 10 \;=\; 0$$

8. Solve the equation.

$$7x^2 - 36x + 3 \;=\; 2x^2 - 5x - 3$$

Name:

at1113exam: Expand, factor, and solve quadratics (v218)

1. Expand the following expression into standard form.

$$(4x - 3)^2$$

2. Expand the following expression into standard form.

$$(9x - 7)(9x + 7)$$

3. Expand the following expression into standard form.

$$(4x - 7)(5x + 9)$$

4. Solve the equation.

$$(8x + 9)(5x - 4) \;=\; 0$$

5. Solve the equation with factoring by grouping.

$$20x^2 - 15x - 8x + 6 \;=\; 0$$

6. Factor the expression.

$$64x^2 - 9$$

7. Factor the expression.

$$x^2 + 3x - 28$$

8. Solve the equation.

$$6x^2 + 13x + 14 \;=\; 4x^2 + 2x + 5$$

Name:

at1113exam: Expand, factor, and solve quadratics (v219)

1. Expand the following expression into standard form.

$$(9x - 2)(9x + 2)$$

2. Solve the equation.

$$(3x - 4)(5x - 2) \;=\; 0$$

3. Expand the following expression into standard form.

$$(9x + 7)(4x + 3)$$

4. Expand the following expression into standard form.

$$(8x - 9)^2$$

5. Solve the equation.

$$8x^2 - 23x + 12 \;=\; 3x^2 + 4x + 2$$

6. Factor the expression.

$$x^2 + x - 6$$

7. Solve the equation with factoring by grouping.

$$18x^2 + 15x + 12x + 10 \;=\; 0$$

8. Factor the expression.

$$49x^2 - 9$$

Name:

at1113exam: Expand, factor, and solve quadratics (v220)

1. Solve the equation.

$$(5x - 6)(4x + 3) \;=\; 0$$

2. Expand the following expression into standard form.

$$(5x + 7)(3x + 4)$$

3. Expand the following expression into standard form.

$$(5x + 9)(5x - 9)$$

4. Expand the following expression into standard form.

$$(7x - 5)^2$$

5. Factor the expression.

$$25x^2 - 9$$

6. Solve the equation with factoring by grouping.

$$10x^2 + 8x - 15x - 12 \;=\; 0$$

7. Solve the equation.

$$5x^2 + 4x - 10 \;=\; 2x^2 + 5x + 4$$

8. Factor the expression.

$$x^2 - 2x - 63$$